Interview with Cmdr. Tony Parrillo Director of the FORCEnet Execution Center

Recently appointed Deputy Director of Naval Network Warfare Command, Mr. Mark Honecker, Cmdr. Tony Parrillo, director of the FORCEnet Execution Center and Capt. Chris Abbott director of FORCEnet Innovation and Experimentation Division cut the ceremonial ribbon celebrating the opening of the FORCEnet Execution Center in building V-53 on Naval Station Norfolk July 19, 2005.

The FORCEnet Execution Center is charged with conducting operational experimentation, specifically Trident Warrior, the major annual FORCEnet Sea Trial event designed to provide speed to capability and rapid fielding of improved command and control warfighting capability to the fleet. CHIPS asked Cmdr. Tony Parrillo, the center's director what the stand up of the FORCEnet Execution Center will mean to Trident Warrior experimentation and deploying FORCEnet capabilities to the fleet.

CHIPS: What will the stand up of the center mean to FORCEnet?

Cmdr. Parrillo: This is actually FORCEnet Execution Center No.2. The significance of opening this center is that we are here in Norfolk, Va., and we are close to Fleet Forces Command, which is the lead for Sea Trial and the primary organization and infrastructure that we support. I report to Capt. Chris Abbott, who is the NETWARCOM Innovation and Experimentation Division head or N9, and he runs the Sea Trial process for the FORCEnet pillar. We are also close to U.S. Joint Forces Command, which has a very robust joint experimentation cell. They are doing a lot, and they have gotten a lot bigger and a lot more influential over the last couple of years.

The original FX Center is in San Diego on NAB (Naval Amphibious Base) Coronado. As the Director of the FX Center, I have West and East Coast offices, with a few less people in San Diego. When you talk about reach back and a dispersed staff, I can speak from experience. I deal with it on a daily basis. Sometimes it is a leadership challenge to direct a staff without being face-to-face with them, but this is one of the transformational issues the Navy is facing right now.

In net-centric operations the best way to act is to have a broadly dispersed force so you are a very difficult target to find. So you can focus all your power or energy or weapons on targets from many locations. The enemy won't be able to react because your forces or strength is coming from 'everywhere' and, at the same time, the enemy can't find you because you are everywhere. With reach back, we also reduce our forward footprint, giving the enemy less targets, thus enhancing safety.

For example, the admiral or the strike group commander is used to being able to reach out and touch his intel officer and ask, *Are you sure that this is the best intelligence you have?* The Navy is progressing to the point where we can collaborate across many geographic and time zone boundaries to get the best intelligence from the expert back in the Pentagon or at ONI (Office of Naval Intelligence) or wherever. This will be done without ever meeting the person or possibly even knowing his or her name. Collaborative planning among many people is hard, and the more people you have, it becomes exponentially harder.

CHIPS: You mentioned reaching out to the Program Executive Offices and acquisition community. Do you hope to influence the acquisition process by what you find out in your experimentation?

Cmdr. Parrillo: Yes, we do. The fastest way to bring speed to capability is to interface directly with the acquisition community, working together to field the latest and best equipment for the fleet. That is the nice thing about our Coronado office. It is near the Space and Naval Warfare Systems Command headquarters, and here in Norfolk, we are collocated on the same floor with SPAWAR Systems Center Charleston.

We are closer to what the acquisition community is planning, and we bring a fleet perspective. I have seasoned fleet information professionals, both officer and enlisted working with me. It is a nice synergy for the acquisition community to know what the warfighter needs and for the warfighter to get things faster.

A great addition has been Mr. Mark Honecker, who as the new

Deputy Director of Naval Network Warfare Command, Mr. Mark Honecker, (center), Cmdr. Tony Parrillo, director of the FORCEnet Execution Center (left) and Capt. Chris Abbott, director of the FORCEnet Innovation and Experimentation Division cut the ceremonial ribbon celebrating the opening of the FORCEnet Execution Center in building V-53 on Naval Station Norfolk July 19, 2005. Photo by John Donaldson, NETWARCOM Public Affairs.

deputy director of NETWARCOM, brings years of experience with the acquisition community as well as OPNAV and the Navy budgeting offices. Hopefully, this will bring us full circle to bring cutting-edge command and control, ISR and other FORCEnet capabilities to the fleet faster than ever done before.

CHIPS: Are there any particular PEOs or organizations that you want to work with?

Cmdr. Parrillo: PEO C4ISR (Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance), and PEO IWS (Integrated Weapon Systems) to name two. And I would also like to mention our work with both 2nd and 3rd Fleet. Trident Warrior 2005, our major Sea Trial experiment will be with 2nd Fleet. Trident Warrior 2006 will be with 3rd Fleet. Previously, Trident Warrior 2004 was with 3rd Fleet.

We are trying to get the maximum fleet exposure, at the same time working closely with the PEOs. We also try to work with the Marine Corps Combat Development Command, SPAWAR, the other SYSCOMS and Navy Warfare Development Command, which is the Navy's lead for doctrine and CONOPS.

The Naval Postgraduate School is the lead for our analysis efforts. I work with the Naval War College on some of the doctrine and wargaming. OPNAV N71 is our official resource sponsor. We have worked a little with the Joint Staff and hope to expand on that as well as align our efforts with JFCOM. We are collaborating with the Air Force in the Joint Expeditionary Force Experiment, which is the Air Force's big experiment next year.

We look forward to working with U.S. Northern Command for homeland security and homeland defense issues. We are working with a coalition interagency, the AUSCANNZUKUS organization, which includes Australia, Canada, New Zealand, United Kingdom and United States military services. We are also working with some of the elements of the Department of Homeland Security like the U.S. Coast Guard. We hope to collaborate further with our interagency partners in the global war on terrorism.

That's a lot of organizations to try to work with, so it really keeps us hopping. Capt. Rick Simon, the FORCEnet coordinator from NETWARCOM helps us out a great deal trying to bring it all together for the Navy and Department of Defense.

CHIPS: Who decides whether the FX Center will participate in exercises like RIMPAC or Rim of the Pacific? Your resource sponsor?

Cmdr. Parrillo: Yes and no. RIMPAC is an exercise and TW is an experiment. We have found in the past that combining exercises and experiments is not the most ideal way to conduct TW, so often we try to find our own venues. An exercise is training for whoever is going to deploy. They are worried about fighting a war while in our experiments we want to try to repeat the exact same experiment five times in a row under different network conditions.

When the services are preparing to fight a war, they don't want to do the same thing five times in a row. Also experiments take second place to the real training, so it would be bad to spend a lot of money setting up an experiment, just to have it canceled for real world training. We occasionally will piggyback with some of the resources that are committed to an exercise, but we usually look for our own venues. Experiments have a different focus than an exercise so sometimes training and experiments don't match up well.

The FORCEnet Execution Center staff L-R: Information Systems Technician 3rd Class Zachary Jones, Cmdr. Tony Parrillo, Lt. j.g. Kenneth Box, Lt. Cmdr. Jacqueline McElhannon, Information Systems Technician (SW) 2nd Class Craig Smith, Information Systems Technician (SW) 1st Class Donald McEathron, Quartermaster Chief (SW) William Alston and Electronics Technician 1st Class Molly Vivian (not shown). Photo by John Donaldson, NETWARCOM Public Affairs.

CHIPS: Do you look at the results of other exercises and demonstrations?

Cmdr. Parrillo: Absolutely! For example, 2nd Fleet had its MARCOLE 2 (Maritime Command Limited Experiment) and worked with some cross-domain solutions. We are continuing and refining that work this summer for TW05, which will take place in the November-December timeframe.

Actually for RIMPAC, we are working with 3rd Fleet to help build coalition solutions for the RIMPAC exercise. My experts in cross-domain solutions and networks and the coalition environment are working with 3rd Fleet to help develop networks that will be faster and smoother. It is a greatly dispersed audience. RIMPAC has countries as disparate as Chile, Japan and South Korea.

CHIPS: Are the results from exercises and demonstrations shared to avoid duplicating something that has already been done?

Cmdr. Parrillo: As part of our experimentation campaign, Naval Postgraduate School created FIRE, which is the FORCEnet Innovation Research Enterprise. FIRE is our giant database on FORCEnet experimentation and our collaborative tool for creating those experiments. In FIRE we break everything down to its lowest component level. So if you want to find out

everything that has been done for cross-domain solutions, you can just search the database. This data mining capability will go a long way to preventing duplication, as well as allowing us to plan our campaigns.

CHIPS: Is the FORCEnet Execution Center a lab?

Cmdr. Parrillo: No. We do the coordination. As I said earlier, my staff is dispersed everywhere. We use whatever labs are necessary. We use labs at SPAWARSYSCEN San Diego and SPAWARSYSCEN Charleston's lab at St. Julien's Creek. Occasionally, we even use Air Force or National Security Agency labs. We run the experiments administratively here, and then the bits and bytes are tested in the lab prior to being loaded aboard ships for at sea testing.

CHIPS: Can you talk about some of your objectives?

Cmdr. Parrillo: The number one objective of Trident Warrior is speed to capability. That is getting the FORCEnet capabilities out to the fleet. We try to pick an ESG (expeditionary strike group) or CSG (carrier strike group) that is in their turn-around cycle and help outfit the entire strike group with the latest equipment so that everybody has the same baseline. Then, the strike groups get to try out the new equipment and practice in TW and tell us what they like and don't like. Hopefully we get to tweak the equipment before they go on a cruise. That is the first goal.

Another goal is to find the things with the greatest military utility and promote them to the OPNAV, acquisition or PEO communities. We report the Military Utility Assessments to the Sea Trial Executive Steering Group on what we found were the best things from all our experiments. After all, if it doesn't have a military utility, then there is no reason to test it or continue forward with it.

Hopefully, that will have an effect on the POM (Program Objective Memorandum) and PPBE (Planning, Programming, Budgeting and Execution) process in the Pentagon and then it will trickle down to the acquisition community. The things that we find that have the most military utility are the ones that are fielded to the fleet first.

CHIPS: Did results from TW04 impact the POM?

Cmdr. Parrillo: Yes, there was internal reprogramming to speed the development of some of the things that we found. Mr. Bill Farmer, from the Advanced Digital Network System (ADNS) PEO, likes to quote that Trident Warrior took years off his developmental time line.

CHIPS: Can you talk about any of the improvements to command and control that you hope to achieve?

Cmdr. Parrillo: The key to improving command and control is to help shorten the decision cycle of the commander. As Vice Adm. James McArthur would say, 'FORCEnet is all about the commander.' Bring him the right information in the right format for him to have the best situational awareness to make the best decisions possible.

Just because there is data or information does not mean it is good. Too much information can be as bad as not enough information. You have to be able to display information in a way that the commander can understand to see both secondary and tertiary effects of the things he is doing. We have been looking at different ways to visualize the tactical and strategic situations. We have also been looking at ways to affect people and countries and non-country actors in a non-kinetic way, not by just using effects-based operations and dropping bombs on targets.

If the correct people are involved in the loop, the commander can make the instantaneous decisions that are necessary in today's world. We look at how the people interact with the equipment and interact with one another. The better they can interact with one another and with the equipment, the faster and better they can make decisions. Finally the technology, which most people tend to focus on, is really a smaller portion of the equation than people like to believe.

CHIPS: When you are testing human systems integration are you looking at the ease of using the system?

Cmdr.Parrillo: FORCEnet is made up of three elements. According to the FORCEnet functional concept, the three elements are the warfighter, the process and the technology. Sound HSI practices must be incorporated into all the core processes that define and monitor acquisition and the implementation of FORCEnet.

HSI provides a breakdown of the experimentation process because it looks at the participating capabilities by viewing each of the elements for the work performed by a human in a system, as in a larger system.

HSI is pure in the analytical part because it starts with a process and identifies what work is performed by human beings in the process. Then HSI measures how well the capability or technology supports the performance of human tasks in a live operational context. The reasons for investing in technology are to speed up the process and/or save money. The HSI analysis can show us where machine-to-machine interfaces can replace people. This can speed up the process as well as save the Navy money by reducing personnel.

CHIPS: The CHIPS staff saw a demonstration of a SATCOM capability for the battlefield. The satellite dish had to be lightweight and easily assembled on the fly. Is this the kind of thing you look at?

Cmdr. Parrillo: We look at even the most basic of things. For example, is the chair comfortable? If the chair is not comfortable then the person making the decisions is going to be distracted by a sore back rather than making the best decisions possible. Is the screen or display user-friendly?

The commander may need a three-dimensional display so that he can see the terrain from different angles. Some angles hide things. If you are just looking at a 'God's eye view' you may not be able to see the hills or terrain in the way. Are the controls comfortable and easy to use? There are a myriad of things that go into HSI.

CHIPS: Are there any new technologies that you are testing that you hope will be ready for fleet use?

Cmdr. Parrillo: There are so many good things that I'm reluctant to mention any particular one for fear of leaving something out. After we execute TW05 and get our results, can I give you an update on some of our standout performers?

I will mention that we tend to focus on technology that is ready to be fielded. For example, the S&T (science and technology) community, like the Office of Naval Research and Defense Advanced Research Projects Agency, focuses on things that are further out in development. We would like to be able to get technologies from the S&T community as they become operationally ready.

We are looking at the things that we can get for the fleet in the near-term and that involves mostly working closely with programs of record. Perhaps, a program of record staff are looking at two different paths that they could go down for one of their applications or programs. We can help them try out different courses of action. We also work to refine and develop requirements for the Navy. We start with the Navy's capabilities and gaps that are missing, and we look at that with OPNAV and the fleet and see what we can do to solve near-term gaps.

CHIPS: Can somebody come to you and ask you to test something for them in the TW or Sea Trial environment?

Cmdr. Parrillo: People can come to us; however, it all starts with STIMS, which is Sea Trial Information Management System, run by NWDC. When any one has an idea, I believe that this includes industry, they suggest what they think should be tried. The ideas are vetted by the Sea Power 21 pillar.

For example, if company X proposes a technology widget, it will be vetted by the FORCEnet Fleet Collaborative Team, and if the team thinks that it is something worth pursuing, it will continue down the Sea Trial path. If it is not, it can be rejected by the FCT or the operational agent. Then all the pillars of Sea Trial, Sea Shield, Sea Strike, Sea Basing and FORCEnet, get together and prioritize capabilities according to the Navy capability gaps.

A lot of times things fit nicely with what we are planning on doing and sometimes they do not. Just because we missed number two on the top ten, does not mean that we did not want to do it; it just did not fit with the venue we have for the next year. We do have some technology that comes up at development conferences where people can come to us. For the most part, we go with what big Navy tells us are the near-term goals. The Naval Capability Gaps provide the initiative areas then we work with the acquisition community and others, like S&T to narrow or close those gaps.

CHIPS: I see you have a terrorist-induced disaster scenario planned for TW05. How do you determine what your scenario is going to be and who is going to participate?

Cmdr. Parrillo: The global war on terrorism scenarios for '05 and '06 came out of an OPNAV wargame to explore what more the Navy can do to fight the war on terror. Over the last several years OPNAV has been recalibrating the Navy's commitment to the major theater wars to integration with other things like humanitarian assistance or homeland security for a more holistic approach.

We are trying to address a lot of those issues including maritime domain awareness which came out of a Presidential Directive just before Christmas this past year. We are looking at finding ways to better fight the global war on terrorism. Back to the FORCEnet functional concept, you have your people, your processes and technology. If you are looking at all three, it will make the Navy a better protector of the American people both near the coast and overseas.

This year we are looking at a scenario with tankers exploding in harbors, helo raids on terrorist camps, maritime interdiction and more. We are looking at command and control issues for some of these issues, including disasters, whether man-made or natural. For instance, after the tsunami hit Indonesia, when Navy warships left the area, the USNS Mercy, a hospital ship, hosted the command post.

Even two years ago no one would ever have imagined that a hospital ship would be the command post for the Navy overseas. Every unit needs robust communications and capabilities. You do not need all the decision-makers or intelligence functions on the hospital ship, but they need to be able, in the time of crisis, be able to reach out and touch the experts wherever they are around the world.

CHIPS: Is the Coast Guard in TW05?

Cmdr. Parrillo: The Coast Guard will hopefully be in TW06. We have had discussions on maritime domain awareness with the Coast Guard all summer. As we move into the initial planning conference for TW06 we are planning to have them involved. We know there will be a Coast Guard cutter in the area potentially working with us in TW06.

We would also, if possible, get more of the interagency players involved, possibly the Federal Aviation Administration or other DHS organizations and possibly some of the first-responders and law enforcement. Trying to test some of the connectivity is all a 'crawl, walk, run' theory, but we need to at least test some abilities to exchange information from DoD to other agencies. From there we will hopefully get better, and we will need a seamless transition from homeland defense to homeland security.

CHIPS: Do you get the requirements from Fleet Forces Command?

Cmdr. Parrillo: They are the lead for the Sea Trial process. They help define the final priorities of the things we look at, and then when we are done with our Military Utility Assessment, we feed that back to them and they feed it to OPNAV.

This method will help define the Navy's funding priorities for the next POM cycle. CHIPS